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VII.—*Memoir on the Northern Frontier of Greece.* By Lieutenant-Colonel Baker. Communicated by John Backhouse, Esq. Read April 24, 1837.

THE map of the Northern Frontier of Greece was the result of an operation conducted by commissioners of the three Allied Powers, Great Britain, France, and Russia, for the purpose of determining and laying down upon the ground itself the several points of the line with that accuracy which a permanent separation of Greece from Turkey appeared to require, and the necessity of which arose from the incorrectness of the best existing maps, and the imperfect geodesical information supplied by modern travellers to guide a work of this nature and importance.

Previously to entering upon a connected description of the tract of country over which the line of boundary is carried, it may be as well to glance at the extent of those data which were essentially necessary to enable the line to be fixed, and for the geographical delineation of the ground which it traverses.

These data were wholly wanting. It was indeed owing to the absence of them that the commission originated; since, had it been possible to trace the frontier on any existing map that could be depended upon, it might have been unnecessary to appoint officers to mark it out who were total strangers to the country, and who were only enabled to feel their way through it by a previous reconnoissance of the ground itself.

The general direction of the line being nearly east and west, and, consequently, at right angles to the usual routes of communication leading from Thessaly and Epirus, on the one hand, to Locris, Bœotia, Acarnania, and Ætolia, on the other; the points of *intersection*, merely, are those touched upon in the itineraries of Gell, Dodwell, and Holland, whilst the intervening districts, of a wild and mountainous character, not very easy of access, or inviting from the Klephtic and disorganized habits of the population, had remained unnoticed by any modern traveller.

Colonel Lapie's map, though in itself a very remarkable production, when we consider the many doubtful and heterogeneous sources from which it was compiled, and at that time the best extant, was still very defective on all the most important points of the line.

Its most accurate data are derived from the itineraries above referred to, and though the routes given by Sir William Gell were very serviceable to us in the investigation of the eastern extremity, and especially in his description of the pass of Khlomo, yet in the examination of Western Greece and the more central districts of Agrafa, the only authority open to a reference lay in the voluminous, though somewhat inaccurate, work of M. Pouqueville, "Voyage de la Grèce," on which, in common with the information supplied by Sir William Gell and Mr. Dodwell, Lapie's map was framed; but we soon found it necessary to shut it up, it being impossible to place any confidence in its details.

From the Gulf of Arta to the Valley of the Sperchius, Lapie's map does not bear the least resemblance to the real configuration of the ground. It is incorrect in the position assigned, and the denomination given to the several mountains, and even to some of the principal villages.

Thus the name of Macrinoros is given to the whole chain of mountains dividing the basins of the Gulf of Arta and of the Aspro, instead of being marked, as it is, a secondary, and very subordinate feature. Tymphrestus, the modern Veluchi, is placed in the range of Agrafa, instead of the position assigned to Callidrome, near Karpenitza;—no part of the chain of Othrys is known by the name of Varibovo or Hellevo; the course of the Aspro is very incorrectly marked, and the two bridges of Korakos and Tartarina are confounded in one.

If the able and comprehensive work on Northern Greece from the pen of Colonel Leake had, at that time, made its appearance, it would have assisted in clearing up many doubtful points in the investigation of unexplored ground, upon which every local information, we were obliged, on the spur of the moment, to resort to, had frequently an obvious and direct motive for misleading rather than assisting us.

In the determination of the line, therefore, the course pursued by the commission was to examine, beforehand, the features of the country in the direction assigned by its instructions, and wherever any discretionary power, originating in doubtful points, was left open for its determination to select those most conformable to the objects required, with a further reference to those positions of the line which, in immediate connexion, had already preceded, or were to follow them; and then to decide upon their adoption before it proceeded to the investigation of any new district.

In the subsequent operations for the completion of the two maps which were directed to be presented respectively to the governments of Greece and Turkey, it was thought essential that a work of this importance should be based upon a trigonometrical survey of, at least, a narrow strip of country on each side of the frontier line; and with this view a base of 4100 French metres* was measured with great accuracy in the plain of Arta in the summer of 1833, with the intention of carrying a continuous series of triangles from the Gulf of Arta to that of Volo.

Political difficulties and the disturbed state of the country contributed to prevent the completion of this work in the mode and on the scale which had been originally intended. In the mean time, the French survey of the Morea having been directed to be extended to Northern Greece, or at least to Attica, Bœotia, Locris, Doris, and a part of Ætolia,† it was determined, as this operation advanced, to base the triangulation on an extension of their stations to the extreme frontier for the eastern and central districts, combining and meeting it by a series of triangles in connexion with the base in the plain of Arta for the map of the western portion as far as the chain of Agrafa; the coast line at the two extremities being compared with and corrected from the accurate survey of the Gulfs of Volo and Arta under Captain Copeland and Mr. Cooling.

Although the boundary, therefore, was examined and politically determined in its whole extent during the autumn of 1832, yet the various difficulties‡ adverted to above interposed to prevent the completion of the surveys and of the map till the spring of 1835.

Including its sinuosities, the whole extent of the line, from the Gulf of Arta to that of Volo, is nearly 137 miles, and was defined by 95 land-marks§ placed in such positions as any change in its direction caused by diversity of feature, or any doubt of the apparent conformation of the ground appeared to require.

At its commencement from the western extremity it intersects the low sandy promontory of *La Punta* (the reputed site of the

* 4483·83 English yards.

† The disturbed state of Western Greece and the disorganized habits of the population have deterred the brigade topographique employed on this survey from any attempt at its extension to Acarnania and the mountainous tracts of Agrafa.

‡ The opposition of the Turkish authorities debarring us from all access to the Ottoman territory, and confining the operations to the southward of the line, not only produced great embarrassment in the selection of the stations, but induced the adoption of the scale of $\frac{1}{150000}$ instead of $\frac{1}{50000}$, which had been originally intended.

§ These landmarks, in the inhabited districts at the two extremities, were mostly destroyed by the Turks in the winter of 1832: they were restored again in the ensuing summer, and the Greek commissioner attached to the commission being personally acquainted with the sites of each of them, their more solid and permanent restoration was confided to the care of his government.

ancient Actium) by a line drawn through the midst of a marsh at a medium distance of about three miles from the fort of the same name, which, on the Acarnanian shore, commands the entrance of the Gulf of Arta, at that spot not more than 600 yards in width, between the town of Prevesa on the left, and La Punta on the right.

From the eastern shore of La Punta the line traverses the Gulf of Arta in a north-east direction, passing between the promontories of Skafidaki and Panagia, and disposing of the islands in the Gulf according to their relative proximity to the northern or southern coast line; those of Guidaronisi and Karakonisi being left to Turkey, whilst Kefalo and the group called Vouvalu were allotted to Greece. None of them are inhabited, with the exception of Karakonisi, on which is a small convent and chapel dedicated to the Virgin, where two priests reside, and where there is a small vineyard and garden, the rest of the island being covered with large olives and prickly oak. This island, strictly speaking, is connected with the northern shore of the Gulf by two causeways or strips of sand, inclosing extensive lagoons, where the water does not exceed a few inches in depth, the one attaching it to the coast near Salagora, about three miles in length, the other passing through two small islets of the same group, and meeting the shore about two miles and a half to the north-east, near the *Bocca Falsa,* or old mouth of the river Arta. The ancient course of the river to this point may be very distinctly traced; and in confirmation of the change having taken place at no very distant period, the greater part of the land situated on the present right bank is still the property of the village of Komano on the left. The connecting causeway of Karakonisi to the eastward passes about 200 yards to the southward of the very remarkable Hellenic ruin now called Fido-Kastro, and the position of which seems to agree very well with that of the ancient fort of Ambracus. This consists of an irregular pentagonal inclosure of Hellenic walls of the third order, surmounted by masonry of a later date, apparently Roman, rising abruptly from the water, without any intervening strand, to a height varying from 15 to 25 feet, one side of the pentagon being short, and the general figure approaching to an irregular quadrilateral of about 160 yards in length by 140 in breadth. The Hellenic masonry, in regular courses of large blocks, rises in most places to about two-thirds of the height of the inclosing wall, the depth of water both within and without not exceeding a few inches; so that it is only accessible in one of the monoxyla, or canoe-boats hollowed from a single trunk, commonly used in the lagoons for fishing.

Projecting turrets at the northern and southern angles are calculated to afford a partial flank of defence to the adjacent sides. There are also two turrets on the sides of the quadrilateral facing

the north-east and south-west. The entrance to the inclosed basin is the only break in the circuit of the masonry; it is placed in the south-east angle, and, singularly enough, is the only spot not well flanked.*

The island of Kefalo appears to have been occupied at some period as a post for the observance or defence of the entrance of the Gulf, as foundations of walls of the usual Roman construction, in alternate courses of rough masonry and tile, are traceable in the whole extent of its coast-line, as well as those of some ruined buildings in the interior of the island, which however is of very inconsiderable extent, not being more than 250 yards across, and nearly level with the water's edge. Guidaronisi and the group called Vouvalu are barren rocks.†

After traversing the Gulf of Arta, the line of boundary strikes the coast-line at the north-east corner of the Gulf, at about a quarter of a mile to the northward of the ruined metochi of Menidhi, at a point where one of the lower offsets of the Macrinoros range abuts boldly upon the sea-shore; and it is thence carried over the eastern slope of the basin of the Gulf of Arta, in a direction nearly east-north-east for about fourteen miles and a half. Following the western base of the above-named offset, in a northerly direction, for about three-quarters of a mile, to its extremity, the line then turns at right angles to the east, crosses a small valley or gorge forming the entrance of one of the principal passes of the Macrinoros, and is directed towards the base of another offset of the same range descending in a direction parallel to the first. The line then follows the base of this hill for about a

* This description corresponds exactly with the κλειστὸς λιμὴν of Scylax and Dicæarchus in their notice of Ambracus; and as the opening of the basin was evidently on the side of the ancient channel of Aracthus, it was so well protected as to dispense with the necessity of any flank defences.

† The annexed return will show the comparative value of the several fisheries in the Gulf of Arta, as following upon the Greek or Turkish coast-line respectively:—

	Piastres.
Fishery of Mazoma and Gnio Vivari	8,000
——— of Lachi (near Prevesa)	11,500
——— of Gripo (near Mazoma)	3,500
——— of Avlieri and Zeucalia (from Luro to Salaora)	12,500
——— of Logaru (east of Salaora)	25,000
——— of Coftra	250
Total of Turkish fisheries	60,250
——— of Agrilo (near the Macrinoros)	6,000
——— of Catafrico (near Arapi)	600
——— of Ruza (near Vonitza)	350
Total of Greek fisheries	6,950

They were let for these sums by auction in 1832.
The Turkish piastre in 1835 was equivalent to about 3*d.* English money.

quarter of a mile, till it arrives at the Doubsa river, at the ford which is crossed by the road leading from Arta and Comboti to the Macrinoros and Karvanserai. It then ascends the Doubsa by its left bank for about one mile and three-quarters, traverses that stream and the offset descending from the Drimonari range of hills, which separates it from the river of Comboti, descending to the latter by a ravine which joins it about half a mile above the village of the same name, occupying an elevated knoll upon the right bank.

From this point the line ascends the course of the river Comboti in an easterly direction for about eight miles and a quarter to the source of its principal tributary in the plateau of Milia, which divides the basin of the Syntecno, of the Comboti and of the Arta rivers; and from this plateau, in a direction nearly east for about one mile and a half, it attains, on a well-defined ridge, the summit of Chelóna.

This mountain, so called from the resemblance which, when viewed from a distance in the environs of Arta, it bears to a tortoise (χελώνη) both in its hump-shaped form and in the variegated spots of heath, pine, and rock, scattered over its western face, is the most prominent and remarkable of the upper chain which encircles the basin of the Gulf of Arta to the eastward, though in altitude scarcely exceeding those of Veletchico or Syntecno, which flank it to the north and south. Veletchico presents a bleak and barren surface to its summit, whilst Syntecno and Sycharitza, still further south, are very remarkable in the distance, both from the boldness and sharpness of their outline, and from the contrast presented by their bleached calcareous formation to the patches of dark pines which in some places mark their rugged and almost perpendicular ascents.

The portion of the line here described may be said to cover all the principal approaches to Western Greece. The passes of the Macrinoros, as well as the ridge of Drimonari, which protects and secures their right flank, afford, in the rear of the river of Comboti, an excellent position for its defence. The ridge of Drimonari being flanked by, and in immediate connexion with, the lofty mountain-chain of Chelona, and this last falling as abruptly to the eastward into the valley of the Aspro, forms an admirable defensive line from the Gulf to the river. The first four or five miles from the coast, following the base of the lower ranges of the Macrinoros, skirt on the one hand a small but fertile plain, extending from the mountains to the marshes and salines of Koprena, on the left bank of the river Comboti, but which were specially consigned to Turkey. The valley of the Comboti, as well as the general face of the country between the Gulf and the river Aspro, is covered with thick wood, increasing in size and varying

in character in the ascent from the sea to Mount Chelona; the lower levels abounding with many varieties of the oak and plane, and occasionally with a dense underwood of arbutus, prickly oak, mastic, and other shrubs, whilst the upper slopes are studded with remarkably fine pines and silver firs. The only Hellenic remains we met with are—1. The Castro of the Macrinoros on the summit of a wooded knoll, about 500 feet above the level of the sea, immediately behind Menidhi. On the apex is a small Pyrgo surmounted with masonry of a more modern date, the ensemble of which is a very striking object from every part of the Gulf; and on the slope of the hill to the northward are two outer inclosures also of Hellenic foundations, forming a kind of advanced work to the first. 2. There are two small Pyrghi further to the southward, on the crest of the Macrinoros near Langadia, also evidently intended for the defence of the pass, and not calculated, either by their extent or situation, to afford accommodation for any amount of population. Another Hellenic inclosure of inconsiderable extent, in the interior of which we found great quantities of broken tile and pottery, occupies an elevated position on the Drimonari ridge, near the point of connexion with the Macrinoros, and was probably intended to combine a surveillance of the right of the passes with that of the valley of the Comboti, leading to the vale of Syntecno.

From the summit of Chelona* to that of Gabrovo, a space of three miles of bare rock, the line is carried along an undulating ridge, forming, on high table-land, the basin of a Katavothron, the most prominent elevations of which are called Platovouni and Rachigreocopoulo. From Mount Gabrovo to the wooded height of Itamo the line traverses the basin of the river Aspro (including its tributaries) in a direction east-north-east for nearly thirty-one miles. It descends the western slope of this basin by the precipitous bed of a mountain torrent called Stus Kapnus, for about three miles and a half to its junction with the Aspro, at about one-third of the distance from the bridge of Korakos to that of Tartarina, the only two permanent communications across the river in this district, when swoln by winter rains, though at other seasons it is everywhere fordable, being reduced to an insignificant stream, almost losing itself amongst the *white* beds of alluvial shingle from which it derives its name.

Both these bridges are remarkable for the boldness of their design and spread of their span of arch; that of Korakos especially (which remains to Turkey as her line of communication between Arta and Radovitch, and Trikala and Larissa) is perhaps unrivalled in the hardihood and lightness of its structure.

* Colonel Leake, in his map of Northern Greece, has given the name of *Furka* to this mountain, but Mount Furka is apprehended to be a part of Agrafa, on the left bank of the river Aspro.

The span of the arch measures 132 feet; the total length of the roadway from rock to rock is 181 feet; whilst the *width*, including a narrow and very low parapet, does not exceed 7 feet 8 inches, and the height above the bed of the river is 125. The road itself is barely 6 feet in width; nor does it appear, by the approaches on either bank, to have been ever intended for wheel communication. The rocks on either side rise perpendicularly to a great height, and nothing can be more striking than the effect of this narrow rib of masonry, connecting the two precipitous banks of the Aspro, at the point where it issues in a romantic glen from the wild gorges of the Tzumerka and Agrafiote mountains, and in a situation where the traveller is least prepared to meet with so beautiful and singular a triumph of the skill of the engineer, resembling more the flying buttress of some light Gothic edifice, than a substantial and permanent communication for man and beast over the foaming torrent of the first river in Greece. Its construction is attributed to the enterprise of the Prior of the monastery of Durikon in Thessaly, and considering its distance from the convent, it does no less credit to the liberality and public spirit of the Caloyers, than to the skill of the engineer.* Bridges of this description, however, are not uncommon in this district: in the valley of the river Petrillo there is one, of which the arch, still perfect, measures 86 feet, whilst its breadth is scarcely 8. There are two others in the valleys of the Platanies and Raftopoulo of similar proportions; but the communications leading to all these, excepting Korakos, have been long since broken up and abandoned, though the arches remain entire. They appear to be all of ancient date.

From the mouth of the Stus Kapnus to that of the Platanies river, the line follows the bed of Aspro for about two-thirds of a mile, passing under a ruined bridge having the remains of three arches, the piers of the central and widest being 60 feet apart. It is known by the name of Stais Trichais, from the practice of restoring a temporary communication during the winter months by means of *hair* ropes. The shore on either side is low and flat, with a narrow strip of cultivated ground on the left bank.

From the mouth of the Platanies the boundary ascends the course of that river in a north-east direction to its source in the mountain of Tzornata, a projecting buttress of the great central chain of Pindus, which it attains in Mount Bugikaki, by a crest of six miles and a half in length, certain peaks of which are known by the names of Aphorismeni, Pende Pyrghi, Tria Sinora, and Stavron to Pastrikon.

The course of the Platanies is the existing boundary between the districts of Leontitos and Megali Vrisi, and the crest from

* It is difficult to conceive from what authority M. Pouqueville drew up his notice of this bridge, which he describes as consisting of *eight* arches.

Tzornata to Tria Sinora between those of Petrillos and Provata; the Tria Sinora, as the name denotes, being the point of junction between the two latter and that of Megali Vrangiana. The ravine by which the Platanies descends from Tzornata is a romantic glen covered with thick wood, the oak and plane gradually giving place, in the approach to the mountain ridge, to varieties of the pine and silver fir. Of these last we measured two, of 18 and 14 feet girth respectively, and there were many others of nearly equal size.

At Papa to Pedema the river appears to have forced its way through a wall of rock, many hundred feet in perpendicular height, the rocks on either side approaching so closely, that a traditionary legend in support of its name, denotes it as having been leapt across by some active priest, whose name, however, has not been preserved to give better authority to the feat.

It can scarcely excite surprise that the events of the last twenty years should have had even a more withering effect upon the population of this portion of Northern Greece than on any other in the immediate neighbourhood of the frontier. Even during the lifetime of Ali Pashá of Jannina, the wild inhabitants of these secluded glens, forming the districts of Upper Agrafa, were only kept in awe by the strong arm and able administration of the despot; but when the reins of authority were loosened by his death, and when the subsequent revolution in Greece not only made these fastnesses the common haunt and refuge of every border bandit, but left it still uncertain to which power they might eventually fall, and therefore made both parties alike indifferent to the tranquillity or organization of so distant and unprofitable a tract, all the ordinary pursuits of social life were relaxed and abandoned, and the habits of the population degenerated into the reckless calling of mere Klephtic hordes.

Many villages have in consequence disappeared; others are reduced to heaps of ruins or simple kalybea, mere groups of huts suited to the nomadic habits of the occupants; and the cultivation of a little barley and maize in the more favoured spots is nearly the amount of their agricultural produce.

Petrillos, a succession of small hamlets in the sequestered glen of the same name, shut in between Mounts Karavi, Bugikaki, and Tzornata, and noted by Colonel Leake as the second town of Agrafa, had at this moment (1832) only two inhabited houses, though the ruins of many others, in every stage of decay, lay scattered for a considerable extent on both sides of the ravine.

The general formation of this part of the Agrafiote range is calcareous, varying very much in character, and with the strata generally very highly inclined. No rocks of a primitive character were observed, though in the more northern ranges of Pindus,

between Metzovo and Calabaka, both serpentine and granite are found in abundance.

The sudden transitions of climate in this district render it extremely unhealthy during the autumn months. It is true that no part of the central range of mountains is above the level of perpetual frost, and before the end of August the highest peaks of Pindus are bare of snow ; but yet the intense heats of summer had scarcely subsided when, so early as the 14th of September, the secondary ranges of hills were capped with snow, and long before the end of October even the lower levels were covered to a considerable depth. This unusual severity indeed was transient, though its ordinary effect is to impede, and frequently altogether to interrupt, the communications during the winter months between Eastern and Western Greece, by the bridges of Korakos and Tartarina, owing to the insufficiency of traffic to keep the road open, so that travellers with loaded mules passing from Arta to Zeitoun or Tricala are forced to take the high road by Jannina, through Thessaly, in order to pass the chain of Pindus by the beaten route to the capital, and even this, being never cleared by manual labour, is frequently, after every fresh fall, impassable for many days together.

From Mount Bugikaki the boundary line descends the great chain of the Agrafiote mountains to the cave of Spilia Kamako, the principal source of the Karitza, which here rushes from the perpendicular face of the rock in a stream of considerable force. This cave is very extensive, the roof in the interior being studded with large stalactites, and a ruined chapel of the Panagia, the probable successor of some heathen Fane of early date, renders it an occasional point of devotional resort to the Thessalian villagers.

From this point the boundary follows the course of the Karitza, in a direction S.E. for about five miles, to its junction with the Mangiar or Mangeri river, which in the lower part of its course takes the name of Megdova, and after receiving the tributaries of Agrafiotico, and the river of Carpenisi, discharges itself into the Aspro below the bridge of Tartarina, nearly opposite the mouth of the Syntecno.

It takes its rise in the eastern base of Mounts Karavi and Affendico, a projecting offset of the first, and after traversing the plain of Nevropolis in a southerly direction, turns to the S.W. and intersects, almost at right angles, the great chain from whence it derives its source.

The connecting feature, forming the hog'sback, as we should term it, of Greece, lies, therefore, in the comparatively low range of hills to the eastward of Neochori, and forming the western slope of the great basin of Thessaly. This feature originating

in the lower eastern slopes of Mount Karavi, after encircling the plains of Nevropolis by a range of moderate height and undulating character, rises, in Itamo and Caprovouni, to sharper crests and peaks of more decided prominence, which it preserves to Mount Vulgari, where it again falls to the low neck and table-formed ridge of Zacharachi Vrisi, from whence it branches to the chains of Othrys and Œta.

From the mouth of the Karitza the boundary line follows the bed of the Mangeri for about 300 yards to that of the Moucha, which it ascends for nearly three miles to the source of its principal and central branch in the Mount Itamo, a very remarkable double-topped peak, thickly covered with pines. From Mount Itamo it follows the crest of the line of hills, of which the principal summits are named Caprovouni and Vulgari, in a S.S.E. direction for a space of thirteen miles and a half, to the neck of Zacharachi Vrisi, the connecting link of the chains of Œta and Othrys with the main chain of Pindus, and, consequently, the point of division between the basins of the Aspro, the Sperchius, and the Salembria; including, of course, their respective tributaries.

The exact site of this spot, so interesting in a geographical, and so important in a political light, since the direction of the central portions of the line resulted wholly from its determination, was ascertained to be about eleven miles N.E. of Veluchi, the ancient Tymphrestus, and about three miles due east of Furna; and, as the table-land of Zacharachi, though not of a very prominent character, or very boldly defined, is an open down, and perfectly clear of wood, no difficulty existed in the exact definition of the several ravines and gullies forming the basins we were desirous of determining. Veluchi had hitherto been supposed to be the connecting point of the three chains of Œta, Othrys, and Pindus, but in fact lies wide of Othrys, and is a part of the chain of Œta, or, more strictly speaking, of the great chain of Greece, and becomes the parent of Guiena, Vardoussia, and Parnassus, the three most lofty mountains of Northern Greece.

From Zacharachi Vrisi to Mount Samendroula the line is carried along the crest of hills generally known by the name of Othrys, in a direction at first nearly S. for about five miles; and then, making a sharp turn at the Tambour of Aios Elias, nearly E. for about fifty-five miles, including the many sinuosities of the ridge, which from Aios Elias to the mountains of Gura (Othrys proper) is very undecided in its general character, and, though an unbroken line of partition between the basins of the Sperchius and the Salembria, is frequently so low and ill-defined, as well as, in many places, so covered with thick coppice wood, and with Katavothra on the very crest, as to make its determination extremely intricate, and to render a proportionate increase in the

number of land-marks indispensable for this portion of the line. From Zacharachi to Samendroula these amount to sixty.

Wherever the boundary happened to approach or to intersect any inhabited district, the most intense anxiety naturally prevailed amongst all classes of the population to profit by the advantages which the new territorial division presented. A very remarkable instance of this occurred in the village of Janitzou, consisting of about sixty well-built houses, many of them of stone, and of two stories in height, with two small chapels, and the inhabitants, of course, like all the rural population, wholly Greek. This village, placed about 200 yards below the ridge of Othrys on the northern slope, having necessarily, from its situation, been consigned to Turkey, the inhabitants, embarrassed by the hardship of their position, which moreover separated them from some of their best land lying on the southern slope of the hill, and finding any alteration of the line in amendment of their position impossible, set themselves to work to remedy the inconvenience by transferring their locale; and, by the following year, notwithstanding the opposition of the Turkish authorities, they had removed the materials of their houses, stone by stone, to an eligible site on the Greek slope of the hill. All traces of *Palea* Janitzou, as the village is already called, will probably, therefore, soon disappear, and a similar feeling will operate in producing, at no very distant period, a very important effect upon the population of those districts which adjoin the frontier.

The subsoil of the whole range of Othrys is a limestone of various and highly-inclined strata, occasionally mixed with iron ore, amyanthe, and asbestos. The presence of iron is in many places so strongly developed, and the facility of land carriage to the Gulf of Zeitoun would be so great, that there can be little doubt of its becoming one day a source of national wealth, whenever the resources or capital of the country can be brought to bear upon the working of the ore.

At the Derveni of Furka the crest is traversed by the high road leading from Zeitoun to Thaumako and Larissa; from this point it assumes, for a few miles, a bolder outline, but beyond Audinitza falls again into a very low and extremely intricate feature, covered with thick wood, till it rises, beyond Petroula, into the knot of mountains known as the Gura Mountains, of which the highest peak, to the westward of Samendroula, is named *Jeracovouni*. These, branching out towards the Gulf of Volo, form Mounts Khlomo and Tragovouni to the eastward, and to the northward, circling round to the westward of Asmeyro, form the link of connexion to Pelion and Ossa, and the eastern slope of the basin of Thessaly.

The direction of the eastern extremity of the line, in its

descent from the chain of Othrys to the shore of the Gulf of Volo, was determined by the position of the pass of Khlomo, which having been specially assigned to Greece, and included in her territory, necessitated the adoption of a boundary to the northward of the ridge on which it lies, between Pteleo and Surbis.

A minute examination of the ground leaving no doubt of the accuracy of Sir William Gell's description of this pass, and of the position which it occupies, the course of the Surbiotico, which runs at the foot of the mountain, was selected from its source in Mount Samendroula to its mouth in the Bay of Surbis, a distance of fourteen miles and a half in a N.N.E. direction. In the upper part of its course this river, which there takes the name of Rossouli, is circumscribed by the lower features of Mount Samendroula into a narrow and densely-wooded ravine, till it emerges into the plain of Surbis by a romantic gorge about three miles from the village of that name, in the cultivation and irrigation of the maize fields and mulberry orchards of which, the original channel is diverted, and in many places almost lost.

The village of *Graditza*, as described by Sir William Gell, in his map and itinerary, as well as in Mr. Dodwell's tour, and copied from thence into Lapie's map, has no existence in the position assigned to it, the large and once flourishing village on that site having been long known by the name of *Gardiki;* but even had it been correctly designated, it would have been impossible to reconcile it with the pass of Khlomo, or to include the latter in the Greek territory by any well-defined line running in the immediate vicinity of the other.

The unchecked marauding parties of the frontier Klephtes have reduced Gardiki, Gura, Surbis, and every village in this district, to a state of the greatest destitution. Half the houses were unoccupied, or in ruins, and the law of the strongest being the only one at that period in force, no security or protection was afforded to the unfortunate inhabitants, of whom scarcely a third remained, compared with the numbers prior to the revolution. Several of these villages, such as Echinos or Ekinos, are now mere kalybea, and their sites may probably soon cease to be occupied.

It will be seen by the preceding notice that the line of demarcation between Turkey and Greece is traced throughout by natural features as well as defined by artificial land-marks; by the base of the lower features of the Macrinoros; by the six streams of the Comboti, the Stous Kapnuus, the Platanies, the Karitza, the Moucha, and the Surbiotico, with the three intervening crests of Chelona, Agrafa, and Othrys. The chain of Chelona is traversed by the two first;—that of Agrafa, by the third and fourth;—and the ascent and descent of the range of Othrys, at its two extremities, is traced by the Moucha and Surbiotico.

It will not be supposed that this boundary forms a line of

separation between the Christian and Mohammedan populations, or that the latter indeed are to be found at all in its vicinity. Personal comfort and personal security naturally draw the Turks together in the larger towns, leaving the rural districts entirely to the care and cultivation of their rayahs. In Patradjick and Zeitoun they were formerly to be met with in considerable numbers; but having sold their property and retired upon Thessaly, so soon as the cession of these districts became known, not a Mussulman is now to be found in either town; and with the exception of the occasional visits of the Dervent-Agás, and the collectors of taxes, no Turkish authority is ever to be met with in the immediate neighbourhood of the frontier. The wild and steril character of the country which it traverses presenting no inducement for the exertions of a population so scanty in amount, the only cultivated ground to be met with is found at the two extremities, in the neighbourhood of Comboti and Surbis, in the valley of the Karitza, and upon the crest of Othrys in the vicinity of Janitzou.

The annexed Heights were obtained during the Survey of the line of Frontier: they are only given as a close approximation to the truth, as the instruments made use of were too small for very accurate observations. The positions are not here given, as they are all marked on the map.

General Position.	Name of Mountain.	Height in feet.
Range of Pindus . . .	Bugikaki . .	7,759
Near Carpenitza . . .	Velluchi . .	7,657
Range of Œta	Katavothron .	7,071
W. of the Aspro . . .	Gabrovo . .	6,479
„ „ . . .	Chelona . .	6,312
„ „ . . .	Sycharitza . .	5,908
E. of the Mangeri . .	Itamo . . .	5,789
E. of the Aspro . . .	Carries . . .	5,764
Range of Othrys . . .	Jeracovouni .	5,669
„ of Agrafa . . .	Stano . . .	5,538
„ of Œta	Goullena . .	4,862
„ of Othrys . . .	Andinitza . .	4,392
Opposite Zumero . .	Zurmentzallo .	3,625
Range of Othrys . . .	Janitzou . .	3,431
„ „ . . .	Xero Vouni .	3,273
„ „ . . .	Megalo Issoma	3,045
Near Gulf of Volo . .	Khlomo . .	2,950
Negropont	Lithada . .	2,222
S. of port Pteleo . . .	Tragovouni .	2,106
Macrinoros	Langadia . .	1,433
S. of the Gulf of Arta .	Amynderos .	1,421
Near „ „ .	Kastri . . .	1,365

The
Northern Frontier
of
GREECE.
1834.
Geographical Miles.
English Miles.
EPYRUS
THESSALIA
ACARNANIA
ARTA
PREVESA
GULF OF ARTA
Gulf of Arta
Chain of Pindus
Mt. Karavi
Mt. Veletchico
Mt. Zarmenitsa
Mt. Tsournata
Mt. Chelona
Mt. Drimonari
Mt. Sycharitza
Mt. Garrica
Mt. Kastri
Mt. Vouniza
Mt. Imvnideros
Mt. Shino
Mt. Monasterachi
Mt. Voulgara
Mt. Yelouchi
Karavanserai
Koniko Vouni
Tambour or Agios Elias
Carpenisi
Kerassova
Vingana
Calivia
Arapi
Komboti
Fidocastro
Salagora
Kanikonisi
Gandaro nisi
Fouvalos
Kefalos
Panagia
Fort
Ta Punta
Ft. Teki
Ste. Maura
Fourna
Neochori
Thimochorio
Mt. Tsouka
Mt. Tsouka 3739
Mt. Tsouka 3652
Mt. Tsouka 3908
Mt. Tsouka 1565
Mt. Tsouka 1421
Mt. Tsouka 5764
Mt. Tsouka 7662
Mt. Tsouka 5789
Mt. Tsouka 5538
Mt. Tsouka 3825

22°
30′
23°
THESSALY
GULF OF VOLO
Volo
Fort
C. Armyros
Armyros
Port of Surbis
Surbis R.
Surbisso R.
Granitza R.
Mt Khlomo 2950
Khlomo Pass
Pelio
Trikeri
Chan.l of Trikeri
C. Stavros
Port Pelio
Tragovouni 2100
Khamako
Gardiki
Mt Samendroula
Nerotida
Petroula
Stilida
Echinos
Zeitoun
Drakhilitza R.
Petra Rotano
NEGROPONT
G. of Zeitoun
C. Anderas
Mt Lithada 2222
Lithada
Lithada I.
Chan.l of Talanta
Thermopylæ
Mt Katavothron 707
Chain of Œta
Goullena 1862
Petradjik
Sperchius R.
Ipato Igladi
Agio Gianni
R. Hellada
Mt Yelouchi 7657
Neochori
Tambour or Agios Elias
Rovedjaki
Gdamena
Rakhi
Mt Voulgara
Dranista
Thaumaco
Panagia
L. Vizeno
Megalo Isoria 2045
Mikro Isoria
Fourna
Zacharachi Vrisi
Rendina
Tritonos R.
To Pharsalia
R. Stamato nilo
R. Gortzelika
Goura
Mt Mavrika
Mt Kerkovouni 2585
R. Rouga nilo
Chain of Othrys
Pharsalia
Thessaliotis
Phthiotis
Opuntia
Locris
Gulf of Volo
№ 95
Subiotico or Rodia R.
Mt Khlomo
Mt Lithada
Mt Samendroula
Mt Voulgara
Mt Yelouchi
Mt Katavothron
Chain of Œta
Goullena
Petradjik
Sperchius
Zeitoun
Negroponte
Thermopylæ
Chan.l of Talanta
39°
30′
Enumeration of the Line of Landmarks
Royal Geographical Society, by John Murray, London, 1837.
John Arrowsmith.